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-- Said problem is solved according to the invention with the features of patent claim 21. With respect to the storage system, the problem is solved with the features of patent claim 24. Advantageous advanced developments of the invention are described in the dependent claims. --

A marked-up version of the prior pending paragraph showing the changes made is attached as Exhibit A.

IN THE CLAIMS

Please cancel claims 1 to 20 and replace with new claims 21 to 34 as follows:

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-- 21. A method of loading and unloading loads in the rack storage warehouse comprising a plurality of rack bays (1) and rack aisles (2) located between the bays (1) of racks, comprising the steps

- (a) that a load (10) is transported ~~at~~ a face side of a rack bay (1) to a vertical conveyor (6);
- (b) that the load (10) is transported at the face side of the rack bay (1) in the vertical direction to a target level;
- (c) that the load is transported at the target level in the horizontal direction in the rack aisle, whereby the load

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in the vertical conveyor (6) is treated the same way as a load in the rack;

- (d) that the load (10) is transported in the horizontal direction in the rack aisle (2) up to a target location at the respective target level; and
- (e) that the load (10) is transported in the horizontal direction from the rack aisle (2) into the rack.

22. The method according to claim 21, characterized in that during the unloading of loads (10), the steps (a) to (e) are carried out accordingly in the reverse order.

23. The method according to claim 21, characterized in that each change in direction during the transport of the load (10) is carried out at an angle of 90°.

24. A storage system for loading and unloading loads in a rack storage warehouse comprising a plurality of rack bays (1) and rack aisles (2) located between the rack bays (1), in particular for carrying out the method according to claim 21, whereby provision is made in the rack aisles (2) for a plurality of guiding elements (16) associated with individual levels of the bays of racks; that provision is made on the guiding elements (16) for movable transport devices (11) suitable for receiving loads (10); that provision is made in conjunction with the

transport devices (11) for a system for displacing the loads sideways into the racks; and that provision is made for vertical conveyors (6), characterized in that the vertical conveyors (6) are arranged on rack bays (1) in such a manner that a load in the vertical conveyor can be handled the same was as a load in the rack.

25. The storage system according to claim 24, characterized in that the system for displacing the loads sideways into the racks is formed by a lifting and pushing system (12).

26. The storage system according to claim 24, characterized in that provision is made at the ends of the rack bays (2) for lifting devices by means of which the loads can be lifted to the guiding elements (16).

27. The storage system according to claim 24, characterized in that a plurality of rack elements (27) are associated with each level of the rack bays (1); and that the guiding elements (16) are integrated in the rack elements (27).

28. The storage system according to claim 24, characterized in that the lifting systems and the transport devices can be driven by means of pulling systems.

B3 29. The storage system according to claim 24, characterized in that provision is made in the rack aisles (2) for two transport devices (11), said transport devices being connected with each other.

AA 30. A transport device for use in a storage system according to claim 24.

Sub B4 31. The transport device according to claim 30, characterized in that the transport device (11) comprises rollers (18) having a running surface adapted to the shape of the guiding element.

32. A lifting and pushing system for use in a storage system according to claim 24.

Sub B5 33. The lifting and pushing system according to claim 32, characterized in that in the lower zone, the lifting and pushing system (12) comprises running wheels (2) and a lifting system acting in the upward direction, so that loads can be raised and the force of the weight acts on the floor.

34. The lifting and pushing system according to claim 32, characterized in that the lifting and pushing system (12) comprises a plurality of lifting bars (24) for raising a lifting